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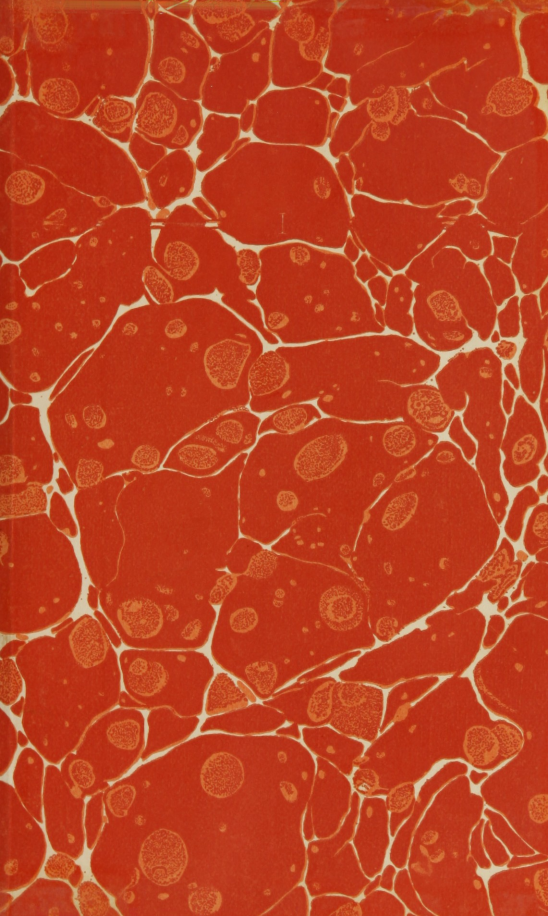
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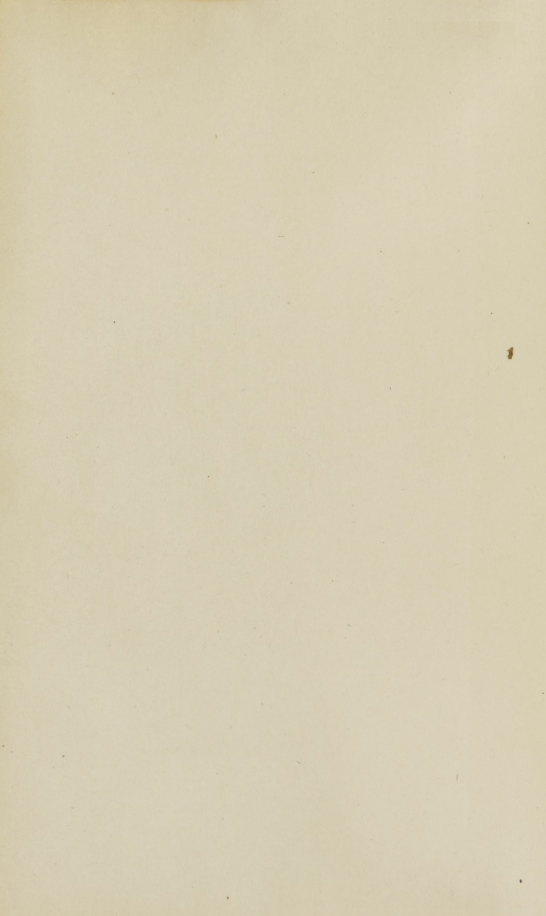
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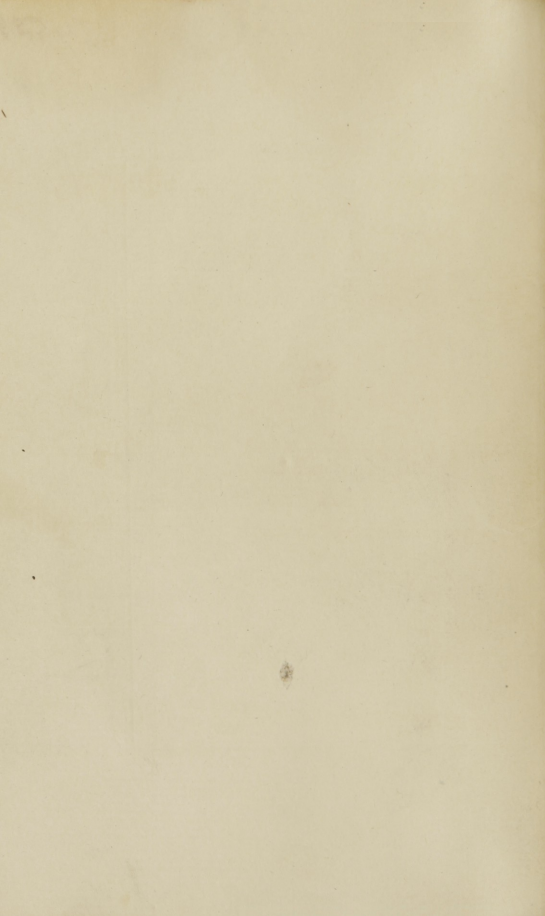
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*15 April 57*  
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**E N Q U I R Y** *war*

INTO THE

*26-A*  
**NATURE, CAUSE and CURE,**

OF THE

**ANGINA SUFFOCATIVA,**

O R,

**SORE THROAT DISTEMPER,**

As it is commonly called by the Inhabitants of this City  
and Colony.

---

By **SAMUEL BARD, M. D.**

And PROFESSOR of MEDICINE in KING'S COLLEGE,  
NEW-YORK.

---

IS RECTE CURATURUS QUEM PRIMA ORIGO CAUSÆ NON  
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M,DCC,LXXI.



T O  
The HONORABLE  
CADWALLADER COLDEN, Esq;  
His Majesty's LIEUTENANT GOVERNOR of the  
Province of NEW-YORK, &c.

S I R,

**T**HE Permission you have given me of inscribing to you the following ESSAY, lays me under a particular Obligation, both as it is a Mark of your Favor, and a Recommendation of the Performance; and as it affords me an Opportunity of publicly declaring the great Respect and Esteem, with which I am,

S I R,

Your HONOR's

Most obedient,

And most humble Servant,

SAMUEL BARD.





---

A N

E N Q U I R Y

I N T O T H E

N A T U R E, C A U S E, and C U R E,

O F T H E

ANGINA SUFFOCATIVA, &c.

---

*“ AS a faithful and accurate history of diseases, their various  
“ symptoms and method of cure, is the most effectual way of  
“ promoting the art of healing; Physicians should describe, with  
“ the utmost care, the diseases they would treat of; and the good  
“ and bad effects of any method or medicines they have used in  
“ them. But in a more particular manner is this necessary, when  
“ any new and uncommon distemper occurs, of which the peculiar  
“ pathognomonic and diagnostic signs should be carefully laid down,  
“ and a particular account given of what evacuations, regimen,  
“ and medicines were useful or hurtful in it.*

Huxham on Fevers, p. 267.”

**F**ROM a conviction of the truth and importance  
of these observations, and in obedience to the  
precept of so great a Man as Huxham, I have  
determined to attempt the history of a disease,  
which has lately appeared among the children of  
this city; and which, both as an uncommon and  
highly dangerous distemper, well deserves an  
attentive consideration. In delivering it therefore,  
I shall first carefully enumerate the symptoms with  
which it was attended, and describe the appearances  
which

which occurred on inspecting the bodies of such as died of it ; then enquire into its nature and cause ; and lastly lay down the method of cure which has been found to be most successful in its treatment.

In general, this disease was confined to children under ten years old, though some few grown persons, particularly women, (while it prevailed) had symptoms in some respects resembling it. Most of those who had it were observed to droop for several days before they were confined. And the first symptoms, in most instances, were a slighty inflamed and watry eye, a bloated and livid countenance, with a few red eruptions here and there upon the face, and in one case a small ulcer in the nose, whence oosed an ichor so sharp as to inflame and erode the upper lip. At the same time, or very soon after, such as could speak, complained of an uneasy sensation in the throat, but without any great soreness or pain. Upon examining it, the tonsils *or almonds*, appeared swelled and slightly inflamed, with a few white specks upon them, which, in some, increased so as to cover them all over with one general slough, and in a few the swelling was so great, as almost to close up the passage of the throat ; but this, altho' a frequent symptom, did not invariably attend the disease ; and some had all the other symptoms without it. The breath was either no ways offensive, or had only that kind of smell which is occasioned by worms ; and the swallowing was very little, if at all, impeded.

These symptoms, with a slight fever at night, continued in some for five or six days, without alarming their friends ; in others a difficulty  
of

of breathing came on within twenty-four hours, especially in the time of sleep, and was often suddenly encreased to so great a degree as to threaten immediate suffocation. In general, however, it came on later, increased more gradually, and was not constant; but the patient would now and then enjoy an interval of an hour or two, in which he breathed with ease, and then again a laborious breathing would ensue, during which he seemed incapable of filling his lungs, as if the air was drawn through a too narrow passage.

THIS stage of the disease was attended with a very great and sudden prostration of strength; a very remarkable hollow dry cough; and a peculiar change in the tone of the voice; not easily described, but so singular, that a person who had once heard it, could almost certainly know the disease again by hearing the patient cough or speak. In some the voice was almost entirely lost, and would continue very weak and low for several weeks after recovery. A constant fever attended this disease, but it was much more remarkable in the night than in the day time; and in some there was a remarkable remission towards morning. The pulse at the wrist was in general quick, soft and fluttering, though not very low, and it was remarkable, that at the same time the pulsations of the heart were rather strong and smart than feeble. The heat was not very great, and the skin was commonly moist.

THESE symptoms continued for one, two, or three days. By that time it was usual for them to be greatly increased in such as died; and the patients, though commonly somewhat comatous from

from the beginning, now became much more so ; yet even when the disorder was at the worst, they retained their senses, and would give distinct answers, when spoken to ; although on being left to themselves, they lay for the most part in a lethargic situation, only raising up now and then to receive their drink. Great restlessness and jactation came on towards the end of the disease, the sick perpetually tossing from one side of the bed to the other, but they were still so far comatous as to appear to be asleep, immediately upon changing their situation or posture. An universal languor and dejection were observed in their countenances ; the swelling of the face subsided ; a profuse sweat broke out about the head, neck and breast, particularly when asleep ; a purging in several came on ; the difficulty of breathing increased, so as to be frequently almost entirely obstructed, and the patient died apparently from the suffocation. This commonly happened before the end of the fourth or fifth day ; in several within thirty-six hours from the time the difficulty of breathing first came on. One child, however, lived under these circumstances to the eighth day ; and the day before he died, his breath and what he coughed up, was somewhat offensive ; but this was the only instance in which I could discover any thing like a disagreeable smell, either from the breath or expectoration.

Out of sixteen cases attended with this remarkable suffocation in breathing, seven died ; five of them before the fifth day, the other two about the eighth. Of those who recovered, the disease was carried off, in one, by a plentiful salivation, which began on the sixth day ; in most of the others, by an expectoration of a viscid mucus.

I DISTINGUISH between the salivation and expectoration, because in one the discharge seemed to come from the salivary glands, and was attended with little or no cough; in the others it manifestly came from the Trachea, and was attended with an incessant cough; and I judged the salivation to have been a natural crisis, as the patient had taken but six grains of calomel before it came on. Her gums were not inflamed, her teeth were not loose, nor had her breath or saliva, the smell of persons under a mercurial salivation. In this case the voice, in the space of a few hours, from being pretty strong and loud, became so low as to be with difficulty heard.

ONE of the first families in which this disease appeared was that of Mr. W. W. of this place. He had seven children in his family, all of whom were taken ill one after another. The four first had the disease as I have just now described, and three of these died; the one who recovered was the instance I mentioned, in which the disease was carried off by a salivation. The other three were the youngest. They had not the difficulty of breathing, but in its stead, very troublesome ulcers behind their ears. These began with a few red pimples, which soon ran together, itched violently, and discharged a great deal of a very sharp ichor, so as to erode the neighbouring parts, and in a few days spread all over the back part of the ear, and down upon the neck. They all had a fever, particularly at night, and one of them had a perpetual tenesmus, (*or urging to go to stool.*) This symptom appeared in some who had the difficulty of breathing, but in none to so remarkable a degree as in this child.



AFTER this, many other children had similar ulcers behind their ears, and some of them seemed slightly affected with the difficulty of breathing, but it never became alarming while this discharge continued. These ulcers would continue for several weeks, appeared covered in some places with sloughs, resembling those on the tonsils; and at last grew very painful and uneasy.

IN some cases they were attended with swellings of the glands under the tongue and behind the ears, which subsided on the eruptions appearing, and discharging freely, and again swelled upon the discharge being checked.

I MET with nothing like this complaint in adult persons, unless the two following cases may be considered as allied to it; they happened about the same time, and both were women; one of them had assisted in laying out two of the children that died of it. At first her symptoms resembled rather an inflammatory angina, but about the third day the tonsils appeared covered with thick sloughs, her pulse was low and feeble; she had a moist skin, a dejection of spirits, and some degree of anxiety; though nothing like the difficult breathing of the children.

THE other was a soldier's wife, who for some time before she perceived any complaint in her throat, laboured under a low fever. Her tonsils were swelled, and entirely covered with sloughs, resembling those of the children; but her breath was more offensive, and she had no suffocation.

I HAVE had an opportunity of examining the nature and seat of this disease, from dissection, in  
three



three instances. One was a child of three years old. Her first complaint was an uneasiness in her throat. Upon examining it, the tonsils appeared swelled and inflamed, with large white sloughs upon them, the edges of which were remarkably more red than the other parts of the throat. She had no great soreness in her throat, and could swallow with little or no difficulty. She complained of a pain under her left breast; her pulse was quick, soft and fluttering. The heat of her body was not very great, and her skin was moist; her face was swelled, she had a considerable prostration of strength, with a very great difficulty of breathing, a very remarkable hollow cough, and a peculiar change in the tone of her voice. The next day her difficulty of breathing was increased, and she drew her breath in the manner before described, as if the air was forced through too narrow a passage, so that she seemed incapable of filling her lungs: She was exceedingly restless, tossing perpetually from side to side, was sensible, and when asked a question, would give a pertinent answer, but otherways she appeared dull and comatous. All these symptoms continued, or rather increased, until the third night, on which she had five or six loose stools, and died early in the morning.

UPON examining the body, which was done on the afternoon of the day she died, all the back parts of the throat, and the root of the tongue were found interspersed with sloughs, which still retained their whitish colour. Upon removing them, the parts underneath appeared rather pale than inflamed. No putrid smell could be perceived from them, nor was the corps in the least offensive.

The

The Œsophagus, *or gullet*, appeared as in a sound state. The epiglottis, *which covers the wind-pipe*, was a little inflamed, on its external surface, and on the inner side, together with the whole larynx, was covered with the same tough white sloughs, as the glands of the throat. The whole trachea quite down to its division in the lungs, was lined with an inspissated mucus, in form of a membrane, remarkably tough and firm; which, when it came into the lungs, seemed to grow thin and disappear: It was so tough as to require no inconsiderable force to tear it, and came out whole from the trachea, which it left with much ease; and resembled more than any thing, both in thickness and appearance, a sheath of thin shammy leather. The inner membrane of the trachea was slightly inflamed; the lungs too appeared inflamed, as in peripneumonic cases; particularly the right lobe, on which there were many large livid spots, though neither rotten or offensive; and the left lobe had small black spots on it, resembling those marks left under the skin by gun powder. Upon cutting into any of the larger spots, which appeared on the right lobe, a bloody sanies issued from them without frothing, whereas upon cutting those parts which appeared sound, a whitish froth, but slightly tinged with blood, followed the knife.

THE second dissection I attended, was of a child about seven years old, who had had all the symptoms with which this disease is commonly attended, except that in this case the glands of the throat, and upper parts of the wind-pipe, were found entirely free from any complaint, and the disease seemed to be confined to the trachea only, which was lined with this tough mucus, inspissated

inspissated so as to resemble a membrane: We could trace it into the larger divisions of the trachea, and it was evident that the smallest branches were obstructed by it, for it was very observable, that upon opening the breast the lungs did not collapse as much as is usual, but remained distended, and felt remarkably firm and heavy, as if they were stuffed with the same mucus.

THE last was a child of about three years old, who died in thirty-six hours after the difficult breathing first came on; yet even in this case, I discovered and shewed to several by-standers, the inspissated mucus which lined the trachea, and which was so remarkable as to be evident to all who saw it, that it must have been the cause of the child's death.

THIS is a faithful history of this complaint, as it appeared in most of the cases I have met with; and in which I have been careful to enumerate such symptoms only, as I myself have seen. In the next place, let us compare it with some similar diseases described by others, with a view to discover what connection there is between them, and to see if this comparison will throw any light upon its diagnostic signs, its nature, or cure.

DOCTOR HOME, in an essay published some years ago at Edinburgh, describes a disease under the name of the Croup, or Suffocatio Stridula, attended with the following symptoms:---It was peculiar to children, attended with a singular change in the tone of the voice, which he resembles to the crowing of a cock, but acknowledges it is not easily described; a quick and laborious breathing,

breathing, without much difficulty in swallowing, or remarkable inflammation in the throat, a dull pain about the upper part of the wind-pipe, and sometimes a cough, but not of the common kind, but more short and stifled, and less convulsive, with little or no expectoration. He adds, that the children preserved their senses to the last, and were remarkably free from all other complaints, so that they would eat a minute before they expired, that they commonly drooped some days before they were confined, and that in many the face was swelled and bloated.

SUCH a remarkable agreement in the symptoms, is of itself almost sufficient to determine these diseases to be the same, but when we compare the appearances from dissection, it is placed beyond a doubt. In eight cases of which he gives the dissection, the mucous membrane I have described, was constantly found, and put on exactly the same appearances; it was of a firm consistence, loosely adhering to the trachea, from which it came off in the shape of a hollow tube, and either in that form, or as a tough mucus, descended into the smallest branches of the trachea, so as to choak their cavities, and consequently suffocate the patient. It is true, Doctor Home does not mention the swelling of the tonsils, or the sloughs upon them, as frequent symptoms; but in some cases here they were wanting; and he mentions some, in which the tonsils, together with all the glands about the root of the tongue, were swelled, and covered with mucus; so that upon the whole it can hardly be doubted, but that they are the same disease.

DOCTORS FOTHERGILL and HUXHAM, have both written upon a disease, under the title of a Malignant ulcerous sore throat; which in some circumstances, particularly an erysipelatous eruption, with which it was attended, and many symptoms which indicated a high degree of putrescency in the humours, widely differed from the complaint I have described; and yet they agree in so many other, and such remarkable symptoms, that I cannot help entertaining an opinion, that they bear some relation to each other. Do not these circumstances, their being in a great measure peculiar to children, their infectious nature, their beginning with a watry inflamed eye, succeeded by an inflammation, swellings and sloughs on the tonsils and neighbouring parts, unattended with any remarkable difficulty in swallowing; the inflammation and discharge from the nose, behind the ear, &c. the fever and poroxism at night; but above all the peculiar difficulty in breathing, the hoarse dry cough, and remarkable change in the tone of the voice? I say, do not these symptoms, in which they all agree, justify such an opinion, and although these diseases may specifically differ, yet determine them to be generically the same? And may not the erysipelatous eruptions, and putrid symptoms mentioned by these gentlemen, have belonged rather to the constitution of the air, than to the essential nature of the disease; just as the small pox, according to accidental circumstances, puts on a mild or a malignant appearance. There seems great reason to believe this was the case, especially in that disease described by Doctor Huxham, for he particularly mentions that all the diseases of that season, were attended with "some kind of cuticular eruptions, and that too  
 " even



“ even in pleuretic and peripneumonic disorders,  
 “ so greatly did the constitution of the air, &c.  
 “ seem disposed to produce eruptions in all sorts  
 “ of feverish indispositions, and the blood drawn  
 “ from the diseased during all that time was very  
 “ rarely viscid, but generally florid, and especially  
 “ at the beginning of the disease of a very loose  
 “ texture.” He particularly mentions too, the  
 strangled breathing, and hoarse hollow voice as  
 characteristic symptoms; and says, that “ this noise  
 “ in speaking and breathing was so peculiar, that  
 “ any person in the least conversant with the dis-  
 “ ease might know it by this odd noise.” And  
 several Spanish and Italian physicians, quoted by  
 Doctor Fothergill, as treating of the same disease,  
 on which he writes, not only take notice of this  
 very remarkable symptom, but even name the  
 disease from it, *Garotillo & Morbus Strangulato-*  
*rius*. A strong proof that the suffocation must (in  
 the cases they met with, as it was with those I have  
 described) have been the most striking symptom,  
 and that which constituted the danger of the disease.  
 This is still more evident from the reason given by  
 R. Moreau, why the Spaniards call it *Garotillo*,  
 “ because, (says he,) those afflicted with this dis-  
 “ order, appear to be affected in the same man-  
 “ ner as such as are strangled by a rope.” It is  
 likewise remarkable, that some of the first writers  
 on the complaint of which Doctor Fothergill treats,  
 call it simply *Garotillo, Morbus Strangulatorius, &c.*  
 taking little notice of the symptoms of putrefaction;  
 while others, as Severinus connect them together,  
 terming it *Pestilens ac præfocans pueros abscessus*; and  
 others again entirely omit the symptoms of suffo-  
 cation, and name it *Angina Pestilens, Angina Gan-*  
*grenosa, malignant ulcerous sore throat, &c.*



THE same difference too is to be remarked with regard to the opinion the first writers on it entertained of its infectious nature; for whilst many declare it to be pestilential and contagious without restriction, some, particularly Cortesius, an Italian physician consider it as contagious, only in a certain limited sense; "*non esse absque aliqua contagione*," are his words.\* So that it seems very evident, that even the disease which Doctor Fothergill treats of, was frequently connected with those affections of the trachea, and that every remarkable suffocation and strangulation in breathing, which so strongly characterise that, we have lately had among us; and on the other hand that the symptoms of putrefaction greatly differed at different times, and in different places in that on which he writes: Nor is it improbable to suppose, that where the symptoms of putrefaction most prevailed, there the suffocation would be least evident; as it would naturally prevent the formation of that mucous membrane, which occasions the suffocation.

NEITHER Doctors Fothergill nor Huxham, have favoured us with any dissections of persons who died of the complaints they treat of; but Huxham observes that pieces of the internal membrane of the wind-pipe were sometimes spit up, which probably were nothing but the inspissated mucus I have mentioned, from its very near resemblance to it, mistaken for the membrane of the trachea. And Doctor Monro, sen. in the dissection of some children who died at Edinburgh, of a disease then considered to be the putrid sore throat, found the same mucus membrane lining the trachea, and de-

\* See Fothergill's Account of the sore Throat.

scending into its minutest branches, similar to what is found in the croup: It was not, however, universal in all he examined, but wherever it was found, it was remarkable that the children, whilst alive, breathed in the same manner, throughout the whole course of the disease, as those who were affected with the croup; a pretty evident proof, that these diseases are at least allied to, and apt to run into each other. †

MAY not therefore, the great discharge of mucus from the trachea and fauces, mentioned by Dr. Fothergill and Huxham, have arisen from the same source, only that from the greater acrimony and putrescency in that species of the disease it put on a thinner consistence? Or is it improbable to suppose, that the symptoms of putrefaction, mentioned by these gentlemen, have rather been accidental, and arisen from the peculiar constitution of the air at that time, or from some other occasional circumstance, than of the nature of the disease, and essential to it. I must confess I am inclined to be of this opinion, particularly as I find from all accounts, that the difficulty in breathing, and symptoms of suffocation almost invariably attended this complaint; and that those of putrefaction differed greatly at different times, and in different patients. There is one case in particular mentioned by Doctor Fothergill, of a girl about twelve years old, who died in twenty-four hours from the attack of the disease, evidently from the strangulation, and not from a putrid dissolution of the humours; and on the other hand, I have been assured by some of the oldest practitioners in this place, that they have

† See Doctor Withering's Thesis on the Angina Gangrenosa.

have seen but a few years ago the disease I have described, attended both with erysipelatous appearances and highly putrid symptoms.

UPON the whole therefore I am led to conclude, that the disease called by the Italians *Morbus Strangulatorius*, the croup of Doctor Home, the fore throat of Huxam and Fothergill, this disease, and that discribed by Doctor Douglass of Boston, however they may differ in the symptoms of putrescency and malignancy, do all bear an essential affinity and relation to each other, are apt to run into one another, and in fact, arise from the same Leven, which, as Doctor Fothergill styles it, is a *Stimulous of a peculiar nature*, which more or less, according to particular circumstances, generates an acrimony in the humours, and disposes them to putrefaction; and which has a singular tendency to attack the throat and trachea, affecting the mucous glands of these parts, in such a way, as to occasion them to secrete their natural mucus, in greater quantities than is sufficient for the purposes of nature; and which in this particular species, when secreted, is either really of a tougher or more viscid consistence than natural, or is disposed to become so from rest and stagnation.

THE disease I have described, appeared evidently to be of an infectious nature, all infection must be owing to something received into the body, this therefore whatever it is, being drawn in by the breath of a healthy child, irritates the glands of the fauces and trachea as it passes by them, and brings about a change in their secretions. The infection, however, did not seem in the present case to depend so much on any prevailing disposition

tion of the air, as upon effluvia received from the breath of infected persons. This will account why the disorder should go through a whole family, and not affect the next door neighbour; and hence we learn a very useful lesson, namely to remove all the young children in a family, as soon as any one is taken with the disease; by which caution I am convinced, many lives have been, and may again be preserved.

I SHALL NOW proceed to deliver the method of cure, which was found most successful in this disease, as far as it fell under my own observation. And in the first place, as from all the symptoms related, it is evident, that this disorder is not always and in every stage, attended with any remarkable degree of putrescency; and from the dissections it appears, that an inflammation of the lungs, if not the cause, may at least be the consequence of the distemper, one would imagine that bleeding and evacuations were not totally to be forbid; and accordingly we find Dr. Douglass directing us, that if the fever is high, and the patient is plethoric, or accustomed to bleeding, to take away some blood, but with discretion: and if the tonsils are much inflamed, with great pain and difficulty in swallowing, to open the jugular veins. And Huxham acknowledges, in the ulcerous sore throats of which he treats, "That there were certainly  
 " some of them with a pretty smart fever, that  
 " bore bleeding at the beginning with advan-  
 " tage, and that he was obliged in several to give  
 " nitre with diaphoretics."

BUT Doctor Fothergill, speaking of the sore throat distemper, which came under his notice,  
 and



and which seems to have been of a more highly putrid kind, assures us ; that although in such cases he has been induced to order bleeding, yet it did not appear to have any advantageous effects ; and concludes, that notwithstanding the vehemence of the symptoms, it is proper in general to omit this evacuation ; nor can I hear of any person who has used it, in the distemper which appeared lately amongst us, with success, or any remarkable benefit ; so that I hardly dare venture to prescribe it, but must leave it to the discretion of the Physician, until farther experience shall confirm its utility, or forbid its use.

THERE is something very singular in the tendency of the virus in this disease, as I have already hinted, to attack the throat and trachea, nor are the effects it produces there less remarkable. Dr. Fothergill, in his account of the putrid sore throat, describes the sloughs on the tonsils, as mortified escars ; but in the disease we have met with, they appeared as in the trachea, to be nothing more than the mucus of the part, preternaturally thickened into the form of a membrane. At first I imagined this to be only a peculiar kind of pus, which is sometimes found upon the surface of internal inflamed membranes ; but upon removing it, the membrane of the trachea did not appear to have been sufficiently inflamed, to justify such an opinion. And in a case I lately had an opportunity of examining, where the patient died of a very violent inflammation of the internal membrane of the trachea, there was no such mucus lining to be discovered upon it. Nor does it appear to be the effect of any spasm or constriction of the lungs, as it is not generally remarked as occurring in such as have died  
of

of spasmodic asthma, in which particular it is not long since I had an opportunity of being satisfied in the case of a sailor, who actually died in a violent fit of a spasmodic asthma, which had lasted for several days ; and yet there was not the least appearance of any such mucous membrane after death, either in the large or smaller branches of the trachea. This morbid appearance is particularly noticed by several gentlemen who have favoured us with an account of the dissections of those who have died under an angina gangrenosa, or putrid sore throat. Doctor Monro, sen. as I have already taken notice, found it in several he dissected ; and Rolandus Martin Professor of Anatomy at Stockholm, mentions a very remarkable instance of it, where this mucous membrane descended into the minutest branches of the trachea arteria, growing thinner as it descended deeper into the lungs, until it resembled the membrane which lines the shell of an egg. He adds, that the lungs were not inflamed, nor in the least injured, so that the infant died merely from the suffocation.\* And even those who have written of the ulcerous sore throat, as Doctors Huxham and Douglass, and have not given the appearances from dissection, have mentioned many mucous linings being expectorated, which Douglass compares to the cuticle raised by vesications, and Huxham conceived to be really pieces of the internal membrane of the trachea. So that this is a circumstance which seems to be peculiar to the disease; and which generally does occur in it; and those who die, on the second or third day, with the  
strangulated

\* See Doctor Withering's Thesis on the Angina Gangrenosa.



strangulated breathing, are probably suffocated by this membrane. This affection, therefore, of the mucous glands, must be considered as the proximate cause of this disease, it readily accounts for all the other symptoms; and from it only, especially in the beginning of the complaint, can we safely draw our indications of cure; paying at the same time a constant attention to any symptoms of putrescency that may occur.

It is from viewing the disease in this light only, that we can account for the use of Mercury in it; a medicine which if we consider it as a spasmodic complaint, cannot possibly have any good effect, or if we look upon it merely as a putrid disease, seems directly contrary to every intention of cure; but which, nevertheless, undoubted experience has proved to be highly beneficial. And indeed, if we consider the peculiar acrimony which this disease occasions in the fluids in general, independent of putrefaction, and the inspissation of the mucus of the trachea, we might reasonably conclude a priori, that Mercury, which in general corrects acrimony, in a very remarkable manner thins all the mucous secretions, particularly those of the mouth and fauces, and affects the breath very early, would be beneficial in it, and either prevent the formation of this membrane, or promote its separation and expulsion, when already formed. Dr. Douglass viewing the matter in this light first tried it, and meeting with success, afterwards recommended it to others; and, in a very few words, has explained both his theory and practice in this particular. “ Any affection of the throat, “ (says he) does frequently produce a natural pyalism. Mercurials used with discretion, are a “ kind

“ kind of specific in such like ulcers, and ulcuscula,  
 “ and in fact here moisten the throat and mouth,  
 “ stop the spreading of the ulcuscula, and promote  
 “ the casting off of the sloughs; and as an acces-  
 “ sory advantage, the patients being mostly children,  
 “ destroyed worms. Amongst all the preparations  
 “ calomel answered best. The gentle vomiting and  
 “ few stools that it occasioned in some, did not con-  
 “ found the natural course of the distemper. Tur-  
 “ bith produces too strong a revulsion, and the  
 “ eruption is thereby too much diverted. This  
 “ distemper did not well bear any other evacuation  
 “ but mercurials.” And in another place he says,  
 “ the disputation of this acrid iniquation of the  
 “ juices in our distemper, that is, its natural crisis,  
 “ seems to be by the patent and salutary emuncto-  
 “ ries of the fauces and skin. In corrosive taints,  
 “ u. g. venereal and others, a Mercurial ptyalism,  
 “ and sudorific decoction of the woods answer best,  
 “ this gave us the hint of promoting the tendency  
 “ of nature in our illness, by mercurials and gentle  
 “ breathing sweats in bed, which with good  
 “ management seldom failed, excepting where the  
 “ necrosis was irremediable from the beginning.”

THERE is a singularity in this Gentleman's stile,  
 but his observations are accurate and judicious;  
 and as he says himself, being founded upon real,  
 not imaginary cases, must therefore be of permanent  
 truth. And indeed the case I met with, in which  
 the disorder (and in no trifling degree) was carried  
 off by a very copious salivation, is of itself, almost  
 a sufficient vindication of this practice; and together  
 with the case of that child whose body I first opened,  
 where I saw the most powerful antiseptics faithfully  
 administered, which not only failed of success, but  
 did

did not even mitigate the symptoms, was what first led me to enquire more minutely into the nature of this disease, and of the remedies which had been used with most success in its cure. Upon reading Dr. Douglass's little essay, (which gave me the greater satisfaction because he wrote upon the disease as it appeared in this country, and under his own immediate observation) I found he placed his chief dependence upon mercurials, which I was the more readily induced to make trial of, from the appearance I found from dissection, the idea I thence naturally formed of this complaint, and the testimonies of some other Gentlemen in their favour: and indeed the good effects they have been attended with, fully justifies the recommendation Dr. Douglass has given of them; as the more freely I have used them, the better effects I have seen from them. Calomel is what is commonly recommended, and has been given to the quantity of 30 or 40 grains, or indeed a much larger quantity, in five or six days, to a child of three or four years old; not only without any ill effects, but to the manifest advantage of the patient; relieving the difficulty of breathing, and promoting the casting off of the sloughs, beyond any other medicine. That it may the more immediately enter the blood, and act more powerfully as an attenuant, it should at first be joined with a mild opiate; and what is a little remarkable, is, that given in this way, it seldom or never raised in children any salivation; though indeed no ill consequences are to be apprehended from it, if it should. After the first or second dose, the opiate may be omitted, as then the mercury will not be so apt to go off by the intestines, and the opiate if continued will, by lessening the sensibility of the trachea, counteract, in some

measure, the attenuating effects of the calomel, and also increase the coma.

THE operation of the calomel, as an expectorant will be very much promoted by a prudent use of oxymel of squills, or least that should purge, by ipecacoanha, given so as to puke two or three times. We well know the good effects of vomits in humoural asthmas, upon the same principle are they indicated in this disease, to relieve the lungs from a load of mucus with which they are oppressed. They are so far from being attended with any ill effects, (as has been apprehended) that in fact they never fail in some measure to relieve the breathing. Doctor Fothergill particularly recommends them, and indeed the more the complaint has a tendency to putrefaction, they are the more necessary, and will be found of greater utility; for in that case the mucus and discharge from the lungs, which children commonly swallow, is very acrid, and unless frequently discharged by puking, will erode the coats of the stomach, and spread the disease. And what Huxham says with regard to vomits, is still more to our purpose, and of itself almost sufficient to refute any prejudices which may have been conceived against them. "In children it was often necessary to make them puke frequently, with a little oxymel of squills, essence of antimony or the like, otherwise *the vast amass of tenacious mucus would quite choke them*."\* The efficacy therefore of this remedy can hardly be doubted, since it is not only pointed out by analogy, and

confirmed

\* Huxham on the ulcerous fore throat. Page 290.



confirmed by experience, but has the united testimonies of the best writers on the subject, Fothergill, Huxham, and Douglass in its favour.

ALTHOUGH Mercury is here considered as the basis of the cure, especially in the beginning of this disease, it is by no means intended to condemn or omit the use of proper alexipharmics and antiseptics; of which the serpentaria, contrayerva, and peruvian bark are the most powerful, and have been used with the greatest success. Sweating is certainly one way, by which nature carries off this disease; insomuch that Huxham declares he did not remember to have had one patient miscarry, who fell into a soft, easy, universal sweat: and therefore, whatever method of cure was pursued, this should be always connected with it. The patient should be kept in bed, and as the disease has a putrid tendency, the diaphoretics should be of the alexipharmic and antiseptic kinds. The bark is certainly a most powerful antiseptic, and when the symptoms of putrefaction, such as a moist clammy skin, highly putrid breath, and hæmorrhages appear, must be attended with advantage. But early in the disease, while the skin continues dry, attended with a great difficulty of breathing, and the symptoms of inflammation rather than those of putrefaction prevail, it should be omitted; and here the removal of the disorder should be attempted, chiefly by mercurials and mild sudorifics. And indeed the whole art, in the cure of this disease, depends upon properly timing these remedies, and insisting upon one or the other, as the symptoms of putrefaction, do more or less prevail. The seneka snake root has likewise been recommended, and certainly where children can be made to



to take it, will promote the attenuating effects of the calomel: as an alexipharmic and antiseptic, the Virginian snake root is the most powerful, but the contrayerva is the least disagreeable, and children will on that account frequently take that the most freely.

BUT besides a salivation, and sweating, nature frequently carries off this disease by an eruption on the skin, ulcers behind the ears, or in other parts of the body, or an external swelling of the throat, all of which seem evidently to indicate the use of blisters. And accordingly Doctors Fothergill and Huxham recommend them, particularly Doctor Huxham, who says he has sometimes blistered the throat from ear to ear with great success. It has indeed been said, that they sometimes produced mortifications, and that even the discharge they occasioned, seemed to be more than the patient could bear; but as I have never heard this remark confirmed, I cannot help imagining, that the cases in which they were tried, were particularly unfavourable, and more remarkably putrid than is usual; for in the child, who died on the eighth day, blisters were applied behind the ears, and they had not the least appearance of mortification or gangrene, even after the child's death. And in a case of very great danger, which I lately met with, they were certainly of great service, and very effectually supplied the place of those natural discharges, by which nature carries off this disease.

I WOULD recommend their application early in the disease, from the same principle that they are applied in inflammatory anginas or pleurifies, to relieve the throat and trachea, and to derive the  
flow

flow of humours from the internal, to the external parts.

As the case to which I refer was a very remarkable one, in which the disease was attended with some of the worst symptoms I have ever seen and the method I have been advising was strictly pursued, and attended with success; I cannot help considering this success to be in some measure a proof of the propriety of the treatment, and for that reason shall here insert the case at large.

THE patient was a child of about two years and a half old, who had complained for about a week of a sore throat and hoarseness. The day before I saw her, she had some difficulty of breathing, which on that day was greatly increased, and exactly resembled the breathing of the children whose cases I have before related, when most strangled. Upon examining her throat I found the tonsils swelled, inflamed, and covered with sloughs of a yellowish colour. Her breath was not in the least offensive, her pulse was small and fluttering, and her skin pale and clammy. Two very large blisters were immediately applied, one behind each ear, so as to meet at her throat. She took four grains of calomel, with a quarter of a grain of opium, and was directed to drink a decoction of Virginian snake root, disguised with old metheglin, as a common drink; and as her skin was pale and clammy, she had a clyster of one drachm of peruvian bark, and ten grains of the snake root in milk, to be administered every six or eight hours; but of these she received but one that night; and as we found she did not retain them, they were soon discontinued; nor could she be prevailed on to drink but very little of the decoction.

I SAW

I saw her several times during the first day, and she appeared worse at each time. About eight that evening she had something like a fit, and at nine, the strangulation in her breathing was much increased, her pulse was sunk, her countenance changed, her nose appeared to be pinched up; her eyes were fixed and glassy, a blue ring was observable about her mouth, and she was comatous. I left her, expecting she would soon die. Her blisters had been dressed a little before, had risen well, and discharged freely; and within two or three hours, as I was informed by the watches who sat up with her, she seemed to revive. The next morning I was greatly surprised, not only to find her living, but in a sitting posture, eating her breakfast, with little or no difficulty of breathing, having her natural countenance returned, with some colour in her cheeks, and her pulse rather risen. At twelve o'clock, however, her breathing grew more difficult, and though not so strangulated as the day before, was very quick and uneasy. From this time for five days she remained in a very dangerous situation, and gave but little reason to expect her recovery. Her breathing continued quick and laborious, and her voice was almost entirely gone; her pulse was quick and low; she sweated profusely, particularly at nights, and constantly lay in her bed in a comatous situation, giving however distinct answers when spoken to. I could discover nothing disagreeable in her breath, though sometimes what she brought up was a little offensive. During this time, and for many days after, the blisters discharged very freely, and the matter of the discharge was so sharp and corrosive as to inflame and erode the skin almost from the chin to the breast-bone. She constantly took twice

a day three grains of calomel; and except the first dose without opium, until she had taken upwards of thirty grains; and continued the use of the decoction of snake root in as large quantites as she could be prevailed on to take it. On the seventh day from the time I first saw her, she began to cough a good deal, with which she expectorated pretty freely, and brought up some very tough mucus. She breathed more freely, opened her eyes and looked about with some sprightliness, and drank a glass or two of wine. From this time she gradually grew better, and by the fifteenth day from the time I saw her, all her symptoms had left her, except great weakness, and so remarkable a hoarseness, or rather loss of voice, that it was with great difficulty she could be heard; and a peculiar sensibility of the larynx, with regard to fluids, so that the moment she attempted to drink she fell into a fit of coughing, although she could swallow solid food without difficulty. This however soon left her, but her weakness and lowness of voice continued a much longer time, so that in two months she could hardly walk alone, or speak in a tone above a whisper.

WHEN ulcers appear behind the ears, or in different parts of the body, they require a particular treatment; the discharge should be encouraged by frequently washing them with warm milk and water, and poultices of bread and milk, may be applied to them; but greasy applications always do harm, as they check the discharge: nor will they bear digestives. In some cases, however, after the discharge had continued for a great length of time, it was found necessary to check it, with a very weak solution of white Vitrol, which answered this intention



intention well; nor did I ever observe any ill effects from it: But it was always used with great caution, and never ventured on until the general virus of the disease, had been corrected by a previous use of Mercurials. In respect to gargles, I would entirely follow Doctor Fothergill's advice. Fomentations applied to the breast, and fumigations with the steams of some mild aromatic herbs, and warm vinegar, not only give ease, but serve, in some measure, to attenuate the mucous in the Trachea; and by gently stimulating the lungs, raise a slight cough, and promote the expectoration. The treatment of any accidental symptoms, after endeavouring to form a just idea of the disease, must be left to the discretion of the physician.

SUCH are the sentiments, which, from an attentive observation of the symptoms, and progress of this disease, I have entertained of its nature, and most proper treatment. It is indeed a complaint formidable in its nature, and of a very doubtful event, so that there is no wonder if parents in particular should be greatly alarmed at the least symptom of its approach: but, on the other hand, it is strongly marked, and by a person of common observation, at all conversant in it, easily known and distinguished. It has gone too much under the appellation of a sore throat, and has by many been confounded with the common diseases of that kind, so that parents have often been greatly alarmed where there was no cause of fear, and much terrified where there was no symptom of danger. In truth, the throat, altho' frequently affected, is not the seat of the disease, and many have died where that has been entirely free from complaint; nor are swelled tonsils, an inflammation in the throat, even where it should  
happen



happen to be specked, or a palate hanging to one side, any more the marks of this distemper, than *a very laborious breathing, a hoarse hollow cough, and a peculiar change in the tone of the voice,* unattended with inflammation, are the signs of a common quinsy. In reality, the wind-pipe and lungs are most affected in this disease, and it is the disorder of these organs which gives origin to its characteristic symptoms, and constitutes its danger. By attending to which, we shall, at all times, be enabled to distinguish this dangerous malady from any other distemper, parents will be saved much unnecessary pain and anxiety, and children preserved from the danger which must necessarily attend an erroneous treatment of their complaints.



20m. 1/2



